

## Five million year record of summer monsoon winds and continental aridity from The Maldives carbonate platform (IODP Site U1467)

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Strong winds and the proximity of arid source-areas result in a large flux of desert dust from the continents to the Arabian Sea in summer. This research identifies the main controls on dust influx into the northern Indian Ocean over the last 5 million years by analyzing the first high resolution marine sediment record from The Maldives carbonate platform (IODP Expedition 359; Site U1467), an area strongly affected by the monsoon seasons. Here we present variations in the concentration of specific normalized elements (e.g. Fe/Al, Si/Al), from X-ray fluorescence spectrometry, reflecting variations in the dust flux. We investigate the degree of coupling between the new dust record and Earth's climate in the northern hemisphere. This research paves the way for understanding hominin migration pathways from Africa to Asia.

Keywords: monsoon records, dust, ITCZ, Maldives, hominin migration routes